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Relevance scale ☐ ☐ ☐ ☐ ☐1 [Black-box test reduction using input-output analysis](#)

Patrick J. Schroeder, Bogdan Korel

 August 2000 **ACM SIGSOFT Software Engineering Notes , Proceedings of the International Symposium on Software Testing and Analysis**, Volume 25 Issue 5

Full text available: pdf(316.17 KB)

 Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Test reduction is an important issue in black-box testing. The number of possible black-box tests for any non-trivial software application is extremely large. For the class of programs with multiple inputs and outputs, the number of possible tests grows very rapidly as combinations of input test data are considered. In this paper, we introduce an approach to test reduction that uses automated input-output analysis to identify relationships between program inputs and outputs. Our initial ...

**Keywords:** black-box testing, combinatorial testing, input-output analysis, test reduction
2 [A black box approach to the algebraic set decomposition problem](#)

Ming-Deh A. Huang, Ashwin J. Rao

 May 1998 **Proceedings of the thirtieth annual ACM symposium on Theory of computing**

Full text available: pdf(1.41 MB)

 Additional Information: [full citation](#), [references](#), [index terms](#)
3 [Post-mortem black-box correctness tests for basic parallel data structures](#)

Phillip B. Gibbons, John L. Bruno, Steven Phillips

 June 1999 **Proceedings of the eleventh annual ACM symposium on Parallel algorithms and architectures**

Full text available: pdf(1.35 MB)

 Additional Information: [full citation](#), [references](#), [index terms](#)
4 [In black and white: an integrated approach to class-level testing of object-oriented programs](#)

Huo Yan Chen, T. H. Tse, F. T. Chan, T. Y. Chen

 July 1998 **ACM Transactions on Software Engineering and Methodology (TOSEM)**, Volume 7 Issue 3

Full text available: pdf(284.99 KB)

 Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Because of the growing importance of object-oriented programming, a number of testing strategies have been proposed. They are based either on pure black-box or white-box



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### 1 [Workshop and conference summaries: The first international workshop on automated program analysis, testing and verification](#)

John Penix, Nigel Tracey, Willem Visser

January 2001 **ACM SIGSOFT Software Engineering Notes**, Volume 26 Issue 1Full text available: [pdf\(479.85 KB\)](#) Additional Information: [full citation](#), [abstract](#)

This paper reports on the First International Workshop on Automated Program Analysis, Testing and Verification (WAPATV) held in Limerick on the 4th-5th June 2000, as part of the International Conference on Software Engineering 2000. We begin by presenting an overview of the workshop aims and then focus on the workshop's technical program.

### 2 [Implementation aspects of a SPARC V9 complete machine simulator](#)

Bill Clarke, Adam Czezowski, Peter Strazdins

January 2002 **Australian Computer Science Communications , Proceedings of the twenty-fifth Australasian conference on Computer science - Volume 4**, Volume 24 Issue 1Full text available: [pdf\(1.33 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper we present work in progress in the development of a complete machine simulator for the UltraSPARC, an implementation of the SPARC V9 architecture. The complexity of the UltraSPARC ISA presents many challenges in developing a reliable and yet reasonably efficient implementation of such a simulator. Our implementation includes a heavily object-oriented design for the simulator modules and infrastructure, caching of repeated computations for performance, adding an OS (system call) emu ...

**Keywords:** SMP, SPARC V9 ISA, UltraSPARC, complete machine simulator, execution-driven simulation, object-oriented design

### 3 [The Flux OSKit: a substrate for kernel and language research](#)

Bryan Ford, Godmar Back, Greg Benson, Jay Lepreau, Albert Lin, Olin Shivers

October 1997 **ACM SIGOPS Operating Systems Review , Proceedings of the sixteenth ACM symposium on Operating systems principles**, Volume 31 Issue 5Full text available: [pdf\(2.47 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

### 4 [Self-testing/correcting with applications to numerical problems](#)

M. Blum, M. Luby, R. Rubinfeld

April 1990 **Proceedings of the twenty-second annual ACM symposium on Theory of computing**

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*Murnane, T.; Reed, K.;*

Software Engineering Conference, 2001. Proceedings. 2001 Australian , 27-28 Aug. 2001

Pages:12 - 20

[\[Abstract\]](#)   [\[PDF Full-Text \(824 KB\)\]](#)   IEEE CNF

#### 2 Black-box understanding of COTS components

*Korel, B.;*

Program Comprehension, 1999. Proceedings. Seventh International Workshop on , 5-7 May 1999

Pages:92 - 99

[\[Abstract\]](#)   [\[PDF Full-Text \(80 KB\)\]](#)   IEEE CNF

#### 3 A successful black box design : digital regulation of deposited zinc in hot-dip galvanizing at Sollac Florange

*Fenot, C.; Rolland, F.; Vigneron, G.; Landau, L.D.;*

Control Applications, 1993., Second IEEE Conference on , 13-16 Sept. 1993

Pages:101 - 106 vol.1

[\[Abstract\]](#)   [\[PDF Full-Text \(348 KB\)\]](#)   IEEE CNF

#### 4 Higher order sliding: differentiation and black-box control

*Levant, A.;*

Decision and Control, 2000. Proceedings of the 39th IEEE Conference on , Volume: 2 , 12-15 Dec. 2000

Pages:1703 - 1708 vol.2

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#### 5 Using nonlinear black-box models in fault detection

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*Hansen, H.; Virtanen, H.; Valmari, A.;*

Application of Concurrency to System Design, 2003. Proceedings. Third International Conference on , 18-20 June 2003

Pages:150 - 156

[Abstract] [PDF Full-Text (475 KB)] IEEE CNF

## 2 The Television Transmission Division of Pye

*Ellis, R.J.G.;*

UK Broadcast Manufactuerers - The Pioneering Years (Digest No: 1997/106), IEE Colloquium on , 5 March 1997

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[Abstract] [PDF Full-Text (2448 KB)] IEE CNF

## 3 Tsinghua-1 Micro-satellite power system architecture and design

*Wu Zhifei; You Zheng; Salvignol, J.;*

Power Electronics and Motion Control Conference, 2000. Proceedings. PIEMC 2000. The Third International , Volume: 3 , 15-18 Aug. 2000

Pages:1045 - 1049 vol.3

[Abstract] [PDF Full-Text (368 KB)] IEEE CNF

## 4 Development of the TACCIMS video tactical interface (TVTI). Extending video to the battlefield

*Wronko, M.; Hersh, J.; Dwulet, F.;*

Military Communications Conference, 1995. MILCOM '95, Conference Record, IEEE , Volume: 1 , 5-8 Nov. 1995

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[Abstract] [PDF Full-Text (484 KB)] IEEE CNF



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### 1 [New test methods targeting non-classical faults: A novel wavelet transform based transient current analysis for fault detection and localization](#)

Swarup Bhunia, Kaushik Roy, Jaume Segura

June 2002 **Proceedings of the 39th conference on Design automation**Full text available: pdf(206.90 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Transient current (IDD) based testing has been often cited and investigated as an alternative and/or supplement to quiescent current (IDDQ) testing. While the potential of IDD testing for fault detection has been established, there is no known efficient method for fault diagnosis using IDD analysis. In this paper, we present a novel integrated method for fault detection and localization using wavelet transform based IDD waveform analysis. The time-frequency resolution property of wavelet transfo ...

**Keywords:** fault localization, transient current (IDD), wavelet transform

### 2 [Technical papers: program analysis: Visualization of test information to assist fault localization](#)

James A. Jones, Mary Jean Harrold, John Stasko

May 2002 **Proceedings of the 24th international conference on Software engineering**Full text available: pdf(1.45 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

One of the most expensive and time-consuming components of the debugging process is locating the errors or faults. To locate faults, developers must identify statements involved in failures and select suspicious statements that might contain faults. This paper presents a new technique that uses visualization to assist with these tasks. The technique uses color to visually map the participation of each program statement in the outcome of the execution of the program with a test suite, consisting ...

### 3 [Generalized algorithmic debugging and testing](#)

Peter Fritzson, Nahid Shahmehri, Mariam Kamkar, Tibor Gyimothy

December 1992 **ACM Letters on Programming Languages and Systems (LOPLAS)**, Volume 1 Issue 4Full text available: pdf(1.35 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper presents a method for semi-automatic bug localization, generalized algorithmic debugging, which has been integrated with the category partition method for functional testing. In this way the efficiency of the algorithmic debugging method for bug localization can be improved by using test specifications and test results. The long-range goal of this work is a semi-automatic debugging and testing system which can be used during large-

scale program development of nontrivial programs. ...

**Keywords:** algorithmic debugging, automated debugging, category partition testing, program slicing

4 Debugging and finding faults: End-user software visualizations for fault localization

J. Ruthruff, E. Creswick, M. Burnett, C. Cook, S. Prabhakararao, M. Fisher, M. Main

June 2003 **Proceedings of the 2003 ACM symposium on Software visualization**

Full text available:  [pdf\(359.07 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)


End-user programming has become the most common form of programming today. However, despite this growth, there has been little investigation into bringing the benefits of software visualization to end-user programmers. Evidence from the spreadsheet paradigm, probably the most widely used end-user environment, reveals that end users' programs often contain faults. We would like to integrate software visualization into these end-user environments to help end users deal with the reliability issues ...

**Keywords:** end-user programming, end-user software engineering, end-user software visualization, fault localization, spreadsheets

5 Generalized algorithmic debugging and testing

Peter Fritzson, Tibor Gyimothy, Mariam Kamkar, Nahid Shahmehri

May 1991 **ACM SIGPLAN Notices , Proceedings of the ACM SIGPLAN 1991 conference on Programming language design and implementation**, Volume 26 Issue 6

Full text available:  [pdf\(1.00 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

6 Efficient error detection, localization, and correction for FPGA-based debugging

John Lach, William H. Mangione-Smith, Miodrag Potkonjak

June 2000 **Proceedings of the 37th conference on Design automation**

Full text available:  [pdf\(86.05 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Simulations for modern designs are often performed on Field Programmable Gate Array technology in a functional test and debugging process known as emulation, allowing for more complex simulations than possible in software. One drawback to emulation is the lengthy time spent in the back-end CAD tools for each debugging iteration, including debugging changes and the introduction of control and observation logic. We have developed a technique that confines the re-place-and-route area to only t ...

7 A hierarchical approach to program testing

Janusz W. Laski

January 1980 **ACM SIGPLAN Notices**, Volume 15 Issue 1

Full text available:  [pdf\(999.84 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

A real-environment interactive testing procedure is presented which is based upon a hierarchical decomposition of a program into levels of abstraction. Such a decomposition is defined in terms of a program model which involves both control and data flow. The testing strategy adopted is supposed to follow a typical progress of a programmer who carries out a series of experiments with his program. Several semantical and structural issues involved are discussed.

**Keywords:** (in)correctness, control flow, data dependency, data flow, design errors, detection, error invariance level, level of abstraction, localization, nontermination, secondary errors, test

8 A linear-time algorithm for testing the inscribability of trivalent polyhedra



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Tom Bennet

April 1992 **Proceedings of the 1992 ACM/SIGAPP Symposium on Applied computing:  
technological challenges of the 1990's**Full text available: pdf(561.56 KB) Additional Information: [full citation](#), [references](#), [index terms](#)

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